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Bundling Governance: Finance versus Institutions in Private Investment Promotion

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Bundling Governance: Finance versus Institutions in Private Investment Promotion**Simplice A. Asongu , Enowbi M. Batuo & Vanessa S. Tchamyou**

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Abstract

Purpose – The study extends the debate on finance versus institutions in the promotion of investment documented by Acemoglu and Johnson (2005), Ali (2013) and Asongu (2014). We assess the effects of various components of governance on private investment, notably: political, economic and institutional governances. Financial indicators of depth, allocation efficiency, activity and size are used.

Design/methodology/approach – An endogeneity robust dynamic system GMM estimation technique is employed. Principal component analysis is also employed to reduce the dimensions of governance variables. The empirical evidence is based on 53 African countries for the period 1996-2010.

Findings – The findings provide support for the quality of governance as a better determinant of private investment than financial intermediary development. Moreover, the evidence of finance and governance as substitutes in their impact on investment implies that good governance fuels private investment and this positive impact is stronger in nations with less developed financial systems. This finding is consistent with Ali (2013) and contrary to the results of Asongu (2014c).

Practical implication – Policy measures for fighting involuntary and voluntary surplus liquidities are discussed. The paper provides additional support for the need of strengthening governance institutions to promote investment on the one hand and fighting financial allocation inefficiency by mitigating surplus liquidity issues on the other hand.

Originality/value – The paper extends the debate on the substitution of finance and institutions in the promotion of private investment.

JEL Classification: G20; G24; E02; P14; O55

Keywords: Finance; Institutions; Investment; Property Rights; Africa

1. Introduction

The quality of institutions and financial development are critical determinants of a country's investment climate. This is essentially because investment is a forward-looking adventure and entrepreneurs are for the most part, looking for a secured, stable (Aysan et al., 2008, p.2), financially appealing (Asiedu et al., 2013) and less ambiguous (Le Roux & Kelsey, 2015ab) environment in which to invest. There is a twofold interest in the above narrative. On the one hand, good institutions potentially mitigate economic uncertainties which promote efficiency and hence, positive investment decisions. On the other hand, a good financial environment offers more possibilities for private investment due to increasing financial allocation efficiency: the fundamental mission of financial intermediation in transforming mobilized deposits into credit for private investment. In the light of the above, good institutions and finance improve the climate of investment by enhancing efficiency and reducing the cost of doing business.

African countries have been characterized by a plethora of private investment unfriendly features, *inter alia*: low financial development and surplus liquidity issues (Saxegaard, 2006; Fouda, 2009; Asongu, 2014a); poor institutional quality (Fosu, 2013ab); high infrastructural deficits (Akpan et al., 2014) and substantial levels of capital flight (Asongu, 2014b; Boyce & Ndikumana, 2001, 2003, 2011). This has led to a growing stream of studies in the African business literature on how to increase investment on the continent. The studies range from: broad determinants of investment (Anyanwu, 2012), to country-specific solutions on private investment promotion as a viable alternative to multinational corporations (Rolfe & Woodward, 2004; Wamboye & Adekola, 2013).

The experience of Zambia in attracting investment after failed privatization and liberalization policies has implications for other African countries (Rolfe & Woodward, 2004). This has led to a growing body of literature on determinants of investment in Africa. Consistent with Akpan et al. (2014) and Asongu and Nguena (2014), documented factors that promote investment are multidimensional and complex. These include, *inter alia*: estimation methods, contexts of studies, data spans and measurement of variables (Hajzler, 2014; Moosa, 2002; Asiedu, 2002; Asiedu, 2006; Moosa & Cardak, 2006; Sekkat & Veganzones-Varoudakis, 2007; Buchanan et al., 2012; Ranjan & Agrawal, 2011). Hence, to the best of our knowledge, factors promoting investment in Africa could be classified into two principal streams: business climate (infrastructure, trade openness, institutions, return...etc) and other factors (tenure security, weak land governance, regional factors, global economic shocks, resource-seeking...etc). We highlight them in the following two paragraphs.

With regard to the first stream on doing business, Amengdolagine et al. (2013) have used 1400 corporations in 19 nations of Sub-Saharan Africa (SSA) to investigate the motives of backward investment nexuses to conclude that the main drivers include: time, local partners and market factors. Asiedu (2002) has documented infrastructural availability and return on capital as the main determinants in SSA. The roles of infrastructure, market size and trade openness (Büthe & Milner, 2008; Vijayakumar et al., 2010; Kinda, 2010; Bartels et al., 2009; Jadhav, 2012; Darley, 2012; Anyanwu, 2012; Bartels et al., 2014; Akpan et al., 2014), incentive packages and labor costs (Tuomi, 2011; Vijayakumar et al., 2010; Bartels et al., 2014) have been documented as well. At the level of institutional quality, the following factors are important: democracy (Asiedu & Lien, 2011), government effectiveness and regulatory quality (Jadhav & Katti, 2012), general domestic institutional quality (Asongu, 2012; Neumayer & Spess, 2005; Gastanaga et al., 1998; Tuomi, 2011; Kinda, 2010; Bartels et al., 2014; Abdioglu et al., 2013; Cleeve, 2012) and low levels of political risk (Busse & Hefeker, 2007).

While the above narratives sustain the need for positive signals like good institutional quality, the second stream which entails private investment in terms of foreign land acquisitions for the most part, suggests the contrary. For instances, among others: Areski et al. (2013) do not find any significant nexus between the quality of business climate and investment; corruption does not significantly discourage investment in the BRICS and MINT countries¹ (Akpan et al., 2014); Chinese investments in Africa are motivated by weak institutions (Koslud & Wiig, 2011; Asongu & Aminkeng, 2013) and weak tenure laws in foreign land acquisitions (UN, 2010; Areski et al., 2013; Economic Commission for Africa, 2004; Ingwe et al., 2010; Okoth-Ogendo, 2008; Wouterse et al., 2011; German et al., 2011; Thaler, 2013; Liu, 2013; Osabuohien, 2014). Other motives include: resource-seeking interests (UN, 2010; Koslud & Wiig, 2011; Jadhav & Katti, 2012; Jadhav, 2012; Aleksynska & Havrylchyk, 2013; Rogmans & Ebberts, 2013; Lay & Nolte, 2014); global crises like financial and food shocks (Wouterse et al., 2011; UN, 2010; German et al., 2011; Clapp, 2013; Isakson, 2013; Fairbairn, 2013) and regional features (Asiedu, 2002; Anyanwu, 2012; Aleksynska & Havrylchyk, 2013; Amengdolagine et al., 2013; Yin & Vaschetto, 2011).

This inquiry complements existing literature in at least two ways. First, it extends the Ali (2013) and Asongu (2014c) debate on: (i) the measurement of property rights institutions (PRI) and (ii) complementarities between institutions and finance in the promotion of private

¹ While BRICS represents 'Brazil, Russia, India, China and South Africa', MINT stands for 'Mexico, Indonesia, Nigeria and Turkey'.

investment. While Asongu (2014c) has employed a composite institutional indicator instead of Polity IV as postulated by Acemoglu and Johnson (2005) in the measurement of PRI, we still know very little about the types of institutions that are most favorable to investment². This paper addresses the concern by further decomposing the governance indicator used by Asongu (2014c) into its political (voice & accountability and political stability), economic (government effectiveness and regulation quality) and institutional (corruption-control and rule of law) components. In essence, the paper's curiosity of assessing how different dimensions of governance promote private investment could have relevant policy implications.

Second, the study also contributes to the literature by investigating how structural constraints to African development could be addressed (unemployment, surplus liquidity, business unfriendly climate...etc). With growing evidence that rising unemployment on the continent would only be absorbed for the most part by public investment in the future (Asongu, 2013a), it extends the stream of literature on promoting private investment (Anyanwu, 2006) by assessing the role of institutions versus finance. For the purpose, we employ all the four dimensions of financial intermediary development documented by the Financial Development and Structure Database (FDSD) of the World Bank, namely: deposits (financial depth), credit (financial activity), efficiency (transformation of deposits into credit) and financial size.

We briefly discuss the motivation for considering several governance indicators in the light of recent institutional literature. Oluwatobi et al. (2015) have engaged six governance indicators when investigating the nexus between institutions and innovation in Africa to conclude that regulation quality and government effectiveness are the most relevant in enhancing the relationship. The effect of formal institutions on software piracy has been examined by Andrés and Asongu (2013) to establish that the control of corruption is the most effective governance weapon in the fight against software piracy. This is broadly consistent

² “The Ali (2013, EB) findings on the nexuses among institutions, finance and investment could have an important influence on policy and academic debates. This paper relaxes his hypotheses on the conception, definition and measurement of finance and institutions because they are less realistic to developing countries to which the resulting policy implications are destined. We dissect with great acuteness the contextual underpinnings of financial development dynamics and elucidate why the Acemoglu & Johnson (2005) justification provided for the measurement of property rights institutions (PRI) is lacking in substance. Using updated data (1996-2010) from 53 African countries, we provide more robust evidence on the substitution of institutions and finance in investment. Results under many baseline and augmented scenarios are not consistent with the underlying paper. Justifications for the differences in findings are discussed. As a policy implication, the Ali (2013, EB) findings for countries with poor financial systems may not be relevant for Africa” (Asongu, 2014c, p. 1557).

with Asongu and Kodila-Tedika (2016) who have concluded on corruption-control being the most effective instrument in the fight against African conflicts and crimes. Andrés et al. (2015) have investigated the role of formal institutions on knowledge economy using the six governance indicators. In essence, there is a growing stream of literature on the relevance of bundling and unbundling governance for development outcomes, *inter alia*, in: (i) the prediction of the 2011 Arab Spring (Asongu & Nwachukwu, 2015a); (ii) assessing the role of lifelong learning (Asongu & Nwachukwu, 2016) and foreign aid (Asongu, 2015) on political governance and (iii) examining determinants of foreign direct investment in fast growing developing economies (Asongu, 2016).

The rest the study is organised as follows. The data and methodology are discussed in Section 2. Section 3 presents the empirical results while Section 4 concludes.

2. Data and Methodology

2.1 Data

The study assesses a panel of 53 African nations with data of annual periodicity for the period 1996-2010 from World Bank Development Indicators and World Bank Governance Indicators databases. The choice of periodicity and countries has a twofold justification. First, we wish to remain consistent with the debate between Ali (2013) and Asongu (2014c). Second, institutional data from the World Bank is only available from 1996.

The dependent variable of *Private investment* is measured by Gross Private investment as percentage of GDP. The financial independent variables are appreciated in terms of financial dynamics of depth, efficiency, activity and size. The institutional indicators are extracted from Principal Component Analysis (PCA) which is discussed in Section 2.1.1. The control variables include: inflation, trade openness and economic prosperity. Trade openness and economic prosperity are expected to improve private investment while inflation should have the opposite effect. Accordingly, the former set (or trade and growth) is logically expected to be associated with more investment opportunities. Conversely, whereas low/stable inflation is conducive for investment opportunities, chaotic inflation is very likely to have the opposite effect because it provides a negative outlook on the return to investment.

The variables which are defined in Appendix 1 are consistent with the studies motivating the inquiry. While the dependent and control variables are in line with Ali (2013) and Asongu (2014c), the financial variables are consistent with the latter author. The composite PRI indicator of Asongu (2014c) is decomposed into its political, economic and

institutional dimensions. The summary statistics and correlation analysis are presented in Appendix 2 and Appendix 3 respectively.

2.2 Methodology

2.2.1 Principal Component Analysis

Consistent with the underlying literature (Asongu, 2013b, 2014c), there is potentially a very high rate of correlation or substitution between the governance indicators. This leads to some information redundancy. Hence, we employ PCA to mitigate the dimensions of the composite indicator employed by Asongu (2014c) into its economic, political and institutional components. The PCA is a statistical approach that has been substantially employed in Applied Econometrics to reduce a large set of correlated indicators into smaller components of uncorrelated variables known as principal components (PCs). The first PC represents a substantial part of variation or information in the initial data set. We use the Jolliffe (2002) and Kaiser (1974) criterion to retain the PCs for various governance dimensions. These authors have recommended dropping factors with an eigenvalue of less than one.

In Table 1, the first composite indicator of general governance used by Asongu (2014c) is decomposed into: *Political governance* (PolGov), *Economic governance* (EcoGov) and *Institutional governance* (InstGov). All corresponding governance dynamics have an eigenvalue of above one and display substantial variations in relation to the initial dataset, notably: 82.90% for *PolGov*, 90.60% for *EcoGov* and 93.50% for *InstGov*. *Political governance* captured by voice and accountability and political stability/no violence, is ‘*the election and replacement of political leaders*’. *Economic governance* which appreciates the formulation and implementation of policies that deliver public goods is measured with government effectiveness and regulation quality. *Institutional governance* which is the respect of the State and citizens of institutions that govern interactions between them is captured with corruption-control and the rule of law. These definitions and measurements are consistent with recent institutional literature (Andrés & Asongu, 2013).

On the relevance of PC-augmented regressors in terms of efficiency, consistency and inferential validity, we invite the interested reader to refer to Asongu and Nwachukwu (2015ab) who have confirmed such relevance after exploring a bulk of literature on the subject, *inter alia*: Westerlund and Urbain (2012, 2013ab).

“Table 1 here”

2.2.2 Estimation Technique

The Generalized Method of Moments (GMM) estimation technique is employed, consistent with Ali (2013) and Asongu (2014c). The advantages of dynamic panel regressions have been substantially documented in the literature (Demirgüç-Kunt & Levine, 2008; Asongu, 2013c)³. Two points are worth emphasizing for goodness of fit. On the one hand, the conditions for the use of GMM are satisfied: $N > T$ ($53 > 5$). On the other hand, the use of three-year data averages enables us to restrict overidentification or limit the proliferation of instruments. Hence, the number of instruments is consistently lower than the number of countries across specifications.

The dynamic panel equations are as follows:

$$PI_{i,t} = \sigma_0 + \sigma_1 PI_{i,t-1} + \sigma_2 F_{i,t} + \sigma_3 Gov_{i,t} + \sigma_4 FGov_{i,t} + \sigma_5 T_{i,t} + \sigma_6 E_{i,t} + \sigma_7 I_{i,t} + \eta_i + \xi_t + \varepsilon_{i,t} \quad (1)$$

$$PI_{i,t} - PI_{i,t-1} = \sigma_1 (PI_{i,t-1} - PI_{i,t-2}) + \sigma_2 (F_{i,t} - F_{i,t-1}) + \sigma_3 (Gov_{i,t} - Gov_{i,t-1}) + \sigma_4 (FGov_{i,t} - FGov_{i,t-1}) + \sigma_5 (T_{i,t} - T_{i,t-1}) + \sigma_6 (E_{i,t} - E_{i,t-1}) + \sigma_7 (I_{i,t} - I_{i,t-1}) + (\xi_t - \xi_{t-1}) + (\varepsilon_{i,t} - \varepsilon_{i,t-1}) \quad (2)$$

Where: i represents the country and t stands for the period in years. Tau τ is three because we have used three year data averages. PI measures private investment; F , represents financial development dynamics of depth, efficiency, activity or size. Gov , denotes governance dynamics (political, economic or institutional); $FGov$, interaction between finance (F) and governance dynamics (Gov); I , inflation; E , economic prosperity; T , trade openness; ξ_t is a time-specific constant; η_i is a country-specific effect and; $\varepsilon_{i,t}$ the error term.

Consistent with Bond et al. (2001, pp. 3-4), the *System* GMM approach (Arellano & Bover, 1995; Blundell & Bond, 1998) is preferred to the *Difference* estimator (Arellano & Bond, 1991). A *two-step* estimation procedure is adopted instead of a *one-step* approach because it is heteroscedasticity consistent. The second order autocorrelation test in difference (AR(2)) and Sargan overidentifying restrictions (OIR) tests are employed to ascertain the absence of autocorrelation in the residuals and validity of instruments respectively. It is also interesting to note that the effects of the independent variables on the dependent variable are

³ Relative to cross-country analysis, dynamic panel data analysis has three main advantages and one principal disadvantage. The former include: (i) the incorporation of both time-series and cross-sectional variations; (ii) time-invariant omitted variables are controlled for some bias on endogeneity and (iii) the *System* GMM approach eliminates small sample biases in the *Difference* estimator. On the latter, the estimates are interpreted as short-run effects because data averages are employed to mitigate short-term disturbances that may loom substantially.

not contemporaneous because in the specifications, lagged levels of the independent variables are used as instruments in the difference equation (Eq. 2) and lagged differences of the independent indicators used as instruments in the level equation (Eq. 1). This enables the exploitation of orthogonal or parallel conditions between the lagged endogenous variable and the error term.

We briefly provide some discourse on marginal effects that is important for the sound interpretation of estimated coefficients. Brambor et al. (2006) have substantially documented the pitfalls associated with interactive regressions. According to the authors, for corresponding interaction estimates to have economic meaning, they should be interpreted as conditional marginal effects. This line of interpretation is consistent with recent African development literature based on interactive regressions (Batuo, 2015).

3. Empirical results and discussion

3.1 Presentation of results

There are two principal concerns motivating this section, notably: (i) the independent effects of governance indicators and financial dynamics on private investment and (ii) the combined effects of governance and finance on the dependent variable. Tables 2, 3, 4 and 5 assess the nexuses with financial depth, efficiency, activity and size respectively. The models are consistently valid across specifications and tables because the null hypotheses of the AR(2) and Sargan OIR tests are overwhelmingly rejected⁴.

In Table 2, the following findings could be established. First, while governance dynamics significantly promotes private investment, the effect of financial depth (deposits) is not significant. The incidence from governance indicators in increasing order is significant in the political, economic and institutional dimensions. Second, the interaction of governance and finance on the dependent variable is not significant. This may imply financial deposits dampen the positive effect of governance dynamics on private investment. Third, the significant control variables display expected signs. Accordingly, while high inflation has a negative effect on private investment because of an unfavorable investment climate,

⁴ As discussed in the methodology section, in order to investigate the validity of the models, two tests have been performed. (1) The Arellano and Bond autocorrelation test which examines the null hypothesis for the absence of autocorrelation in the residuals. (2) The Sargan OIR test which assesses the null hypothesis for the validity of instruments. Hence, rejection of the null hypotheses of both tests across tables and specifications implies the absence of autocorrelation in the residuals and validity of the instruments.

governance is endogenous to economic prosperity or growth in Africa (Anyanwu & Erhijakpor, 2014).

“Table 2 here”

The results of financial efficiency (Table 3), financial activity (Table 4) and financial size (Table 5) in terms of institution-, finance-, interaction- and ‘control variable’- effects are broadly consistent with those of Table 2.

“Tables 3-5 here”

3.2 Robustness checks

For robustness checks, we employ a Roodman (2009ab) extension of Arellano and Bover (1995) that uses forward orthogonal deviations instead of first differences. The extension has the advantage of controlling for cross-sectional dependence and limiting instrument proliferation (see Love & Zicchino, 2006; Baltagi, 2008). The specification is *two-step* to account for heteroscedasticity because the *one-step* approach is homoscedasticity-consistent.

Consistent with Asongu and De Moor (2015), four information criteria are used to examine the validity of estimated models. First, in order to ascertain the absence of autocorrelation in the residuals, the null hypothesis of the second-order Arellano and Bond autocorrelation test in difference (AR(2)) should not be rejected. Second, the null hypotheses corresponding to the Sargan and Hansen over-identification restrictions (OIR) tests should also not be rejected for the validity of instruments. In essence, the Hansen (Sargan) test is robust (not robust) but weakened (not weakened) by instruments. Therefore, the modelling approach restricts over-identification and/or limits instrument proliferation by ensuring that in every specification the number of cross sections is higher than the corresponding number of instruments. Moreover, the Hansen OIR test is given preference compared to the Sargan OIR test because the former (latter) is based on heteroscedasticity (homoscedasticity). Third, the Fisher test is employed to assess the joint validity of estimated parameters. Fourth, the study also employs the Difference in Hansen Test (DHT) for exogeneity of instruments to further examine the validity of the Hansen OIR test.

Two main findings are apparent in Tables 6-9 in relation to Tables 2-5. First, the results provide support for the quality of governance as a better determinant of private

investment than financial intermediary development. Second, the evidence of finance and governance as substitutes in their impact on investment implies that good governance fuels private investment and this positive impact is stronger in nations with less developed financial systems. While the first finding is consistent with those previously established, evidence of a decreasing marginal effect for substitution between governance and finance is now significant.

“Tables 6-9 here”

3.3 Discussion and policy implications

The results have shown that the interaction between finance and governance variables negatively affect private investment. The findings provide support for the quality of governance as a better determinant of private investment than financial intermediary development. This could be traceable to financial development inefficiencies that have been substantially documented in African financial institutions (Fouda, 2009; Saxagaard, 2006). These inefficiencies ultimately lead to surplus liquidity issues owing to information asymmetry (moral hazard and adverse selection).

Let us also discuss how the findings converge with or diverge from existing literature in two strands. First, on the former perspective, the findings are broadly consistent with Ahlin and Pang (2008) who have established a substitution effect: the positive impact of finance on growth decreases with the progress of institutions. Second, the absence of a substantial finance-led- investment nexus is broadly inconsistent with the bulk of existing literature on, *inter alia*: developing (Ndikumana, 2000, 2005; Xu, 2000; Huang, 2006); Asian (Rousseau & Vuthipadadorn, 2005); European (Forssbaeck & Oxelheim, 2008) and developed (Love and Zichinno, 2006) countries. To be more specific about sub-Saharan Africa, Misati and Nyamongo (2010) and Afangideh (2010) have also established a positive nexus. This difference can be elicited in the view that, the measure of financial development for the most part in the documented studies is ‘money supply’. Hence, as established by Asongu (2014d), significant differences in the response of investment to finance are apparent when all dimensions of the Financial Development and Structure Database of the World Bank are employed, notably, financial dynamics of: depth, efficiency, activity and size. In this paper, money supply is a component of financial depth.

Before suggesting policy recommendations in the fight against surplus liquidity, it is interesting to highlight how the financial variables employed in the study are: linked to each

other and, related to surplus liquidity. Accordingly, financial allocation efficiency is the ability of financial intermediary institutions to transform mobilized deposits (financial depth or liquid liability) into credit (financial activity) for investment purposes. Hence, the second indicator for financial efficiency may also be measured as a ratio of the third (financial activity) to the first (financial depth or deposits). Hence, high levels of financial inefficiency imply higher financial depth or liquid liabilities and lower financial activity or credit. In what follows, we suggest policy measures for reducing financial deposits, increasing financial activity and hence, improving financial efficiency.

We now discuss some policy initiatives that might be used to address the concern of surplus liquidity. Consistent with Asongu (2014a), the measures could either target ‘voluntary keeping’ of surplus liquidity or ‘involuntary holding’ of excess cash. First, ‘voluntary keeping’ of surplus cash by financial institutions can be curtailed by: (i) improving infrastructure in order to facilitate the transport of funds to remote bank branches; (ii) consolidating establishments that would facilitate inter-bank lending, especially for contingency motives and (iii) deterring banks from holding reserves above statutory ceilings, by easing constraints they face at the central bank in tracking their positions. Second, ‘involuntary keeping’ of cash could also be substantially curtailed by: (i) improving the structures and efficiencies of regional and domestic stock markets in order to expand opportunities of investment for commercial banking institutions; (ii) increasing competition and mitigating asymmetric information in order to reduce the reluctance of banks to increase lending and (iii) improving the ability of banks to boost lending, especially when interest rates are subject to regulation.

The above policy measures will offer greater possibilities for private investment because of increasing financial allocation efficiency. Hence, the fundamental financial intermediation mission of transforming mobilized deposits into credit for private investment.

4. Conclusion

The study extends the debate on finance versus institutions in the promotion of investment documented by Acemoglu and Johnson (2005), Ali (2013) and Asongu (2014). We assess the effects of various components of governance on private investment, notably: political, economic and institutional governances. Financial indicators of depth, allocation efficiency, activity and size are used. An endogeneity-robust dynamic system GMM estimation technique is employed. Principal component analysis is also employed to reduce the dimensions of governance variables. The empirical evidence is based on 53 African countries for the period

1996-2010. The findings provide support for the quality of governance as a better determinant of private investment than financial intermediary development. Moreover, the evidence of finance and governance as substitutes in their impact on investment implies that good governance fuels private investment and this positive impact is stronger in nations with less developed financial systems. This finding is consistent with Ali (2013) and contrary to the results of Asongu (2014c). On practical the implications, policy measures for fighting involuntary and voluntary surplus liquidities are discussed. The paper provides additional support for the need of strengthening governance institutions to promote investment on the one hand and fighting financial allocation inefficiency by mitigating surplus liquidity issues on the other hand.

Table 1: Principal Component Analysis (PCA) for Governance (Gov)

Principal Components	Component Matrix(Loadings)						Proportion	Cumulative Proportion	Eigen Value
	VA	PS	RQ	GE	RL	CC			
First PC (G.Gov)	0.383	0.374	0.403	0.429	0.443	0.413	0.773	0.773	4.642
Second PC	0.297	0.774	-0.369	-0.350	-0.021	-0.230	0.077	0.851	0.466
Third PC	0.750	-0.300	0.353	-0.127	-0.223	-0.396	0.066	0.917	0.398
First PC (PolGov)	0.707	0.707	---	---	---	---	0.829	0.829	1.659
Second PC	-0.707	0.707	---	---	---	---	0.170	1.000	0.340
First PC (EcoGov)	---	---	0.707	0.707	---	---	0.906	0.906	1.812
Second PC	---	---	-0.707	0.707	---	---	0.093	1.000	0.187
First PC (InstGov)	---	---	---	---	0.707	0.707	0.935	0.935	1.871
Second PC	---	---	---	---	-0.707	0.707	0.064	1.000	0.128

Note: P.C: Principal Component. VA: Voice & Accountability. RL: Rule of Law. R.Q: Regulation Quality. GE: Government Effectiveness. PS: Political Stability. CC: Control of Corruption. G.Gov (General Governance): First PC of VA, PS, RQ, GE, RL & CC. PolGov (Political Governance): First PC of VA & PS. EcoGov (Economic Governance): First PC of RQ & GE. InstGov (Institutional Governance): First PC of RL & CC.

Source: Authors' computation.

Table 2: Financial Depth (Liquid Liabilities), institutions and private investment

	Dependent Variable: Private Investment								
	Political Governance (PolGov)			Institutional Governance (InstGov)			Economic Governance (EconGov)		
Priv. Invt. (-1)	0.370* (0.085)	0.460** (0.017)	0.460** (0.017)	0.407** (0.048)	0.453** (0.012)	0.453** (0.012)	0.406** (0.041)	0.468*** (0.005)	0.468*** (0.000)
Constant	5.216*** (0.004)	5.115*** (0.000)	5.115*** (0.009)	5.431*** (0.002)	5.509*** (0.000)	5.509*** (0.005)	4.748*** (0.004)	4.869*** (0.005)	4.869*** (0.000)
Growth	0.379** (0.024)	0.286* (0.069)	0.286* (0.069)	0.322* (0.062)	0.306* (0.052)	0.306* (0.052)	0.312* (0.073)	0.283* (0.079)	0.283* (0.079)
Inflation	-0.000*** (0.000)	-0.030** (0.018)	-0.030** (0.018)	-0.000*** (0.000)	-0.025* (0.072)	-0.025* (0.072)	-0.000*** (0.000)	-0.029** (0.026)	-0.029** (0.026)
Trade	0.015 (0.426)	0.006 (0.792)	0.006 (0.792)	0.004 (0.810)	0.004 (0.853)	0.004 (0.853)	0.013 (0.489)	0.008 (0.713)	0.008 (0.713)
Fin. Depth (FD)	---	4.122 (0.232)	---	---	1.234 (0.745)	---	---	2.320 (0.570)	---
PolGov	0.824** (0.047)	0.461 (0.351)	0.461 (0.351)	---	---	---	---	---	---
InstGov	---	---	---	1.256*** (0.002)	0.998* (0.068)	0.998** (0.068)	---	---	---
EconGov	---	---	---	---	---	---	1.182*** (0.003)	0.839 (0.135)	0.839 (0.135)
PolGov*FD	---	---	-1.966 (0.232)	---	---	---	---	---	---
InstGov*FD	---	---	---	---	---	-1.891 (0.745)	---	---	---
EconGov*FD	---	---	---	---	---	---	---	---	-4.069 (0.570)
Time effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
AR(2)	0.828 (0.407)	0.742 (0.457)	0.742 (0.457)	0.775 (0.438)	0.732 (0.463)	0.732 (0.463)	0.783 (0.433)	0.728 (0.466)	0.728 (0.466)
Sargan OIR	8.143 (0.419)	9.570 (0.296)	9.570 (0.296)	7.970 (0.436)	9.201 (0.325)	9.201 (0.325)	8.090 (0.424)	9.683 (0.288)	9.683 (0.288)
Wald (joint)	213.47*** (0.000)	42.34*** (0.000)	42.34*** (0.000)	217.76*** (0.000)	73.09*** (0.000)	73.092*** (0.000)	233.26*** (0.000)	71.072*** (0.000)	71.072*** (0.000)
Countries	46	41	41	46	41	41	46	41	41
Instruments	17	18	18	17	18	18	17	18	18
Observations	162	141	141	162	141	141	162	141	141

Note: ***, **, and * indicate significance at 1%, 5% and 10% levels respectively. AR(2): Second Order Autocorrelation test. OIR: Overidentifying Restrictions test. The significance of bold values is twofold. 1) The significance of estimated coefficients and the Wald statistics. 2) The failure to reject the null hypotheses of: a) no autocorrelation in the AR(2) tests and; b) the validity of the instruments in the Sargan OIR test. Fin: Financial. Priv. Invt: Private Investment. Not all constitutive terms enter into third specifications because of perfect multicollinearity.

Source: Authors' computation.

Table 3: Financial Efficiency, Institutions and Private Investment

	Dependent Variable: Private Investment								
	Political Governance (PolGov)			Institutional Governance (InstGov)			Economic Governance (EconGov)		
Priv. Invt. (-1)	0.370* (0.085)	0.345 (0.168)	0.345 (0.168)	0.407** (0.048)	0.377 (0.123)	0.377 (0.123)	0.406** (0.041)	0.398* (0.068)	0.398* (0.068)
Constant	5.216*** (0.004)	6.174** (0.016)	6.174** (0.016)	5.431*** (0.002)	6.479*** (0.003)	6.479*** (0.003)	4.748*** (0.004)	6.099** (0.010)	6.099** (0.010)
Growth	0.379** (0.024)	0.358* (0.066)	0.358* (0.066)	0.322* (0.062)	0.365* (0.062)	0.365* (0.062)	0.312* (0.073)	0.327* (0.078)	0.327* (0.078)
Inflation	-0.000*** (0.000)	-0.029** (0.013)	-0.029** (0.013)	-0.000*** (0.000)	-0.020 (0.120)	-0.020 (0.120)	-0.000*** (0.000)	-0.025** (0.035)	-0.025** (0.035)
Trade	0.015 (0.426)	0.021 (0.305)	0.021 (0.305)	0.004 (0.810)	0.008 (0.687)	0.008 (0.687)	0.013 (0.489)	0.013 (0.444)	0.013 (0.444)
Fin. Efficiency (FE)	---	-0.366	---	---	-0.755	---	---	-1.040	---
PolGov	0.824** (0.047)	0.701 (0.155)	0.701 (0.155)	---	---	---	---	---	---
InstGov	---	---	---	1.256*** (0.002)	1.287** (0.012)	1.287** (0.012)	---	---	---
EconGov	---	---	---	---	---	---	1.182*** (0.003)	1.225** (0.025)	1.225** (0.025)
PolGov*FE	---	---	0.174 (0.678)	---	---	---	---	---	---
InstGov*FE	---	---	---	---	---	1.157 (0.397)	---	---	---
EconGov*FE	---	---	---	---	---	---	---	---	1.824 (0.301)
Time effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
AR(2)	0.828 (0.407)	0.755 (0.450)	0.755 (0.450)	0.775 (0.438)	0.707 (0.479)	0.707 (0.479)	0.783 (0.433)	0.710 (0.477)	0.710 (0.477)
Sargan OIR	8.143 (0.419)	6.850 (0.552)	6.850 (0.552)	7.970 (0.436)	6.798 (0.558)	6.798 (0.558)	8.090 (0.424)	6.689 (0.570)	6.689 (0.570)
Wald (joint)	213.47*** (0.000)	107.54*** (0.000)	107.54*** (0.000)	217.76*** (0.000)	100.32*** (0.000)	100.32*** (0.000)	233.26*** (0.000)	125.84*** (0.000)	125.84*** (0.000)
Countries	46	41	41	46	41	41	46	41	41
Instruments	17	18	18	17	18	18	17	18	18
Observations	162	136	136	162	136	136	162	136	136

Note: ***, **, and * indicate significance at 1%, 5% and 10% levels respectively. AR(2): Second Order Autocorrelation test. OIR: Overidentifying Restrictions test. The significance of bold values is twofold. 1) The significance of estimated coefficients and the Wald statistics. 2) The failure to reject the null hypotheses of: a) no autocorrelation in the AR(2) tests and; b) the validity of the instruments in the Sargan OIR test. Fin: Financial. Priv. Invt: Private Investment. Not all constitutive terms enter into third specifications because of perfect multicollinearity.

Source: Authors' computation.

Table 4: Financial Activity, Institutions and Private Investment

	Dependent Variable: Private Investment								
	Political Governance (PolGov)			Institutional Governance (InstGov)		Economic Governance (EconGov)			
Priv. Invt. (-1)	0.370* (0.085)	0.408** (0.011)	0.408** (0.011)	0.407** (0.048)	0.429*** (0.005)	0.429*** (0.005)	0.406** (0.041)	0.424*** (0.000)	0.424*** (0.000)
Constant	5.216*** (0.004)	5.503*** (0.008)	5.503*** (0.008)	5.431*** (0.002)	5.865*** (0.002)	5.865*** (0.002)	4.748*** (0.004)	5.201*** (0.007)	5.201*** (0.007)
Growth	0.379** (0.024)	0.345* (0.057)	0.345* (0.057)	0.322* (0.062)	0.342** (0.047)	0.342** (0.047)	0.312* (0.073)	0.350* (0.076)	0.350* (0.076)
Inflation	-0.000*** (0.000)	-0.032** (0.022)	-0.032** (0.022)	-0.000*** (0.000)	-0.024 (0.103)	-0.024 (0.103)	-0.000*** (0.000)	-0.029* (0.050)	-0.029* (0.050)
Trade	0.015 (0.426)	0.016 (0.467)	0.016 (0.467)	0.004 (0.810)	0.005 (0.795)	0.005 (0.795)	0.013 (0.489)	0.014 (0.478)	0.014 (0.478)
Fin. Activity (FA)	---	1.330 (0.635)	---	---	-0.718 (0.727)	---	---	-0.730 (0.788)	---
PolGov	0.824** (0.047)	0.545 (0.296)	0.545 (0.296)	---	---	---	---	---	---
InstGov	---	---	---	1.256*** (0.002)	1.198** (0.040)	1.198** (0.040)	---	---	---
EconGov	---	---	---	---	---	---	1.182*** (0.003)	1.108* (0.074)	1.108* (0.074)
PolGov*FA	---	---	-0.634 (0.635)	---	---	---	---	---	---
InstGov*FA	---	---	---	---	---	1.101 (0.727)	---	---	---
EconGov*FA	---	---	---	---	---	---	---	---	1.279 (0.788)
Time effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
AR(2)	0.828 (0.407)	0.727 (0.467)	0.727 (0.467)	0.775 (0.438)	0.708 (0.478)	0.708 (0.478)	0.783 (0.433)	0.674 (0.500)	0.674 (0.500)
Sargan OIR	8.143 (0.419)	8.973 (0.344)	8.973 (0.344)	7.970 (0.436)	8.901 (0.350)	8.901 (0.350)	8.090 (0.424)	9.683 (0.287)	9.683 (0.287)
Wald (joint)	213.47*** (0.000)	49.950*** (0.000)	49.95*** (0.000)	217.76*** (0.000)	73.18*** (0.000)	73.18*** (0.000)	233.26*** (0.000)	85.55*** (0.000)	85.55*** (0.000)
Countries	46	41	41	46	41	41	46	41	41
Instruments	17	18	18	17	18	18	17	18	18
Observations	162	141	141	162	141	141	162	141	141

Note: ***, **, and * indicate significance at 1%, 5% and 10% levels respectively. AR(2): Second Order Autocorrelation test. OIR: Overidentifying Restrictions test. The significance of bold values is twofold. 1) The significance of estimated coefficients and the Wald statistics. 2) The failure to reject the null hypotheses of: a) no autocorrelation in the AR(2) tests and; b) the validity of the instruments in the Sargan OIR test. Fin: Financial. Priv. Invt: Private Investment. Not all constitutive terms enter into third specifications because of perfect multicollinearity.

Source: Authors' computation.

Table 5: Financial Size, Institutions and Private Investment

	Dependent Variable: Private Investment								
	Political Governance (PolGov)			Institutional Governance (InstGov)			Economic Governance (EconGov)		
Priv. Invt. (-1)	0.370* (0.085)	0.374 (0.101)	0.374 (0.101)	0.407** (0.048)	0.415** (0.047)	0.415** (0.047)	0.406** (0.041)	0.428* (0.055)	0.428 (0.055)
Constant	5.216*** (0.004)	3.651 (0.302)	3.651 (0.302)	5.431*** (0.002)	5.422* (0.083)	5.422* (0.083)	4.748*** (0.004)	4.620 (0.113)	4.620 (0.113)
Growth	0.379** (0.024)	0.322* (0.071)	0.322* (0.071)	0.322* (0.062)	0.289 (0.131)	0.289 (0.131)	0.312* (0.073)	0.261 (0.179)	0.261 (0.179)
Inflation	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)
Trade	0.015 (0.426)	0.003 (0.832)	0.003 (0.832)	0.004 (0.810)	-0.005 (0.725)	-0.005 (0.725)	0.013 (0.489)	0.001 (0.926)	0.001 (0.926)
Fin. Activity (FS)	---	3.575	---	---	1.025	---	---	1.183	---
PolGov	0.824** (0.047)	0.687 (0.236)	0.687 (0.236)	---	---	---	---	---	---
InstGov	---	---	---	1.256*** (0.002)	1.190** (0.035)	1.190** (0.035)	---	---	---
EconGov	---	---	---	---	---	---	1.182*** (0.003)	1.194** (0.044)	1.194** (0.044)
PolGov*FS	---	---	-1.705 (0.304)	---	---	---	---	---	---
InstGov*FS	---	---	---	---	---	-1.570 (0.774)	---	---	---
EconGov*FS	---	---	---	---	---	---	---	---	-2.075 (0.749)
Time effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
AR(2)	0.828 (0.407)	0.709 (0.477)	0.709 (0.477)	0.775 (0.438)	0.679 (0.496)	0.679 (0.496)	0.783 (0.433)	0.711 (0.477)	0.711 (0.477)
Sargan OIR	8.143 (0.419)	8.543 (0.382)	8.543 (0.382)	7.970 (0.436)	9.356 (0.313)	9.356 (0.313)	8.090 (0.424)	8.022 (0.431)	8.022 (0.431)
Wald (joint)	213.47*** (0.000)	239.57*** (0.000)	239.57*** (0.000)	217.76*** (0.000)	243.25*** (0.000)	243.25*** (0.000)	233.26*** (0.000)	262.95*** (0.000)	262.95*** (0.000)
Countries	46	45	45	46	45	45	46	45	45
Instruments	17	18	18	17	18	18	17	18	18
Observations	162	156	156	162	156	156	162	156	156

Note: ***, **, and * indicate significance at 1%, 5% and 10% levels respectively. AR(2): Second Order Autocorrelation test. OIR: Overidentifying Restrictions test. The significance of bold values is twofold. 1) The significance of estimated coefficients and the Wald statistics. 2) The failure to reject the null hypotheses of: a) no autocorrelation in the AR(2) tests and; b) the validity of the instruments in the Sargan OIR test. Fin: Financial. Priv. Invt: Private Investment. Not all constitutive terms enter into third specifications because of perfect multicollinearity.

Source: Authors' computation.

Table 6: Financial Depth (Liquid Liabilities), institutions and private investment

	Dependent Variable: Private Investment								
	Political Governance (PolGov)			Institutional Governance (InstGov)			Economic Governance (EconGov)		
Priv. Invt. (-1)	0.500*** (0.000)	0.700*** (0.000)	0.700*** (0.000)	0.446*** (0.000)	0.620*** (0.000)	0.620*** (0.000)	0.561*** (0.000)	0.575*** (0.000)	0.575*** (0.000)
Constant	5.140*** (0.000)	6.619*** (0.000)	6.619*** (0.000)	3.913 (0.216)	7.071*** (0.000)	7.071*** (0.000)	3.935 (0.168)	6.615*** (0.000)	6.615*** (0.000)
Growth	0.141 (0.318)	-0.022 (0.807)	-0.022 (0.807)	0.340*** (0.006)	0.082 (0.419)	0.082 (0.419)	0.167* (0.062)	0.074 (0.430)	0.074 (0.430)
Inflation	-0.0005** (0.023)	-0.008 (0.521)	-0.008 (0.521)	0.00006 (0.848)	-0.014 (0.264)	-0.014 (0.264)	0.00005 (0.902)	-0.014 (0.127)	-0.014 (0.127)
Trade	0.016 (0.324)	-0.054*** (0.000)	-0.054*** (0.000)	0.023 (0.570)	-0.029** (0.020)	-0.029** (0.020)	0.014 (0.696)	0.005 (0.641)	0.005 (0.641)
Fin. Depth (FD)	---	9.343*** (0.004)	---	---	5.590* (0.096)	---	---	-1.769 (0.582)	---
PolGov	2.394*** (0.000)	0.585 (0.532)	0.585 (0.532)	---	---	---	---	---	---
InstGov	---	---	---	3.298** (0.027)	1.080 (0.156)	1.080 (0.156)	---	---	---
EconGov	---	---	---	---	---	---	2.980** (0.018)	2.616*** (0.001)	2.616*** (0.001)
PolGov*FD	---	---	-4.456*** (0.004)	---	---	---	---	---	---
InstGov*FD	---	---	---	---	---	-8.564* (0.096)	---	---	---
EconGov*FD	---	---	---	---	---	---	---	---	3.101 (0.582)
Time effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
AR(1)	(0.200)	(0.266)	(0.266)	(0.210)	(0.264)	(0.264)	(0.177)	(0.253)	(0.253)
AR(2)	(0.402)	(0.434)	(0.434)	(0.607)	(0.438)	(0.438)	(0.536)	(0.419)	(0.419)
Sargan OIR	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Hansen OIR	(0.319)	(0.702)	(0.702)	(0.080)	(0.303)	(0.303)	(0.186)	(0.625)	(0.625)
DHT for instruments									
(a) Instruments in levels									
H excluding group	(0.831)	(0.675)	(0.675)	(0.206)	(0.502)	(0.502)	(0.190)	(0.476)	(0.476)
Dif(null, H=exogenous)	(0.148)	(0.582)	(0.582)	(0.098)	(0.231)	(0.231)	(0.264)	(0.611)	(0.611)
(b) IV (years, eq(diff))									
H excluding group	(0.153)	(0.593)	(0.593)	(0.060)	(0.231)	(0.231)	(0.353)	(0.410)	(0.410)
Dif(null, H=exogenous)	(0.948)	(0.711)	(0.711)	(0.399)	(0.569)	(0.569)	(0.101)	(0.985)	(0.985)
Fisher Instruments	154.58*** 22	246.33*** 26	246.33*** 26	257.13*** 22	179.57*** 26	179.57*** 26	462.66*** 22	131.64*** 26	131.64*** 26
Countries	47	43	43	37	43	43	47	43	43
Observations	163	143	143	163	143	143	163	143	143

Note: ***, **, and * indicate significance at 1%, 5% and 10% levels respectively. DHT: Difference in Hansen Test for Exogeneity of Instruments' Subsets. Dif: Difference. OIR: Over-identifying Restrictions Test. The significance of bold values is twofold. 1) The significance of estimated coefficients, Hausman test and the Fisher statistics. 2) The failure to reject the null hypotheses of: a) no autocorrelation in the AR(1) & AR(2) tests and; b) the validity of the instruments in the Sargan OIR test. Fin: Financial. Priv. Invt: Private Investment. Not all constitutive terms enter into third specifications because of perfect multicollinearity.

Source: Authors' computation.

Table 7: Financial Efficiency, Institutions and Private Investment

	Dependent Variable: Private Investment								
	Political Governance (PolGov)			Institutional Governance (InstGov)			Economic Governance (EconGov)		
Priv. Invt. (-1)	0.500*** (0.000)	0.535*** (0.000)	0.535*** (0.000)	0.446*** (0.000)	0.408*** (0.000)	0.408*** (0.000)	0.561*** (0.000)	0.458*** (0.000)	0.458*** (0.000)
Constant	5.140*** (0.000)	3.126 (0.148)	3.126 (0.148)	3.913 (0.216)	-1.581 (0.602)	-1.581 (0.602)	3.935 (0.168)	-4.719* (0.056)	-4.719* (0.056)
Growth	0.141 (0.318)	0.090 (0.181)	0.090 (0.181)	0.340*** (0.006)	0.407*** (0.001)	0.407*** (0.001)	0.167* (0.062)	0.207*** (0.001)	0.207*** (0.001)
Inflation	-0.0005* (0.023)	-0.021* (0.059)	-0.021* (0.059)	0.00006 (0.848)	0.015 (0.206)	0.015 (0.206)	0.00005 (0.902)	0.001 (0.861)	0.001 (0.861)
Trade	0.016 (0.324)	0.008 (0.526)	0.008 (0.526)	0.023 (0.570)	0.038 (0.134)	0.038 (0.134)	0.014 (0.696)	0.044** (0.032)	0.044** (0.032)
Fin.Efficiency (FE)	---	4.852** (0.042)	---	---	5.727 (0.109)	---	---	11.41*** (0.003)	---
PolGov	2.394*** (0.000)	0.844 (0.131)	0.844 (0.131)	---	---	---	---	---	---
InstGov	---	---	---	3.298** (0.027)	3.343*** (0.000)	3.343*** (0.000)	---	---	---
EconGov	---	---	---	---	---	---	2.980** (0.018)	1.180 (0.263)	1.180 (0.263)
PolGov*FE	---	---	-2.314** (0.046)	---	---	---	---	---	---
InstGov*FE	---	---	---	---	---	-8.774 (0.109)	---	---	---
EconGov*FE	---	---	---	---	---	---	---	---	-20.00*** (0.003)
Time effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
AR(1)	(0.200)	(0.259)	(0.259)	(0.210)	(0.296)	(0.296)	(0.177)	(0.262)	(0.262)
AR(2)	(0.402)	(0.399)	(0.399)	(0.607)	(0.588)	(0.588)	(0.536)	(0.522)	(0.522)
Sargan OIR	(0.000)	(0.000)	(0.000)	(0.001)	(0.002)	(0.002)	(0.000)	(0.000)	(0.000)
Hansen OIR	(0.319)	(0.628)	(0.628)	(0.080)	(0.367)	(0.367)	(0.186)	(0.582)	(0.582)
DHT for instruments									
(a) Instruments in levels									
H excluding group	(0.831)	(0.896)	(0.896)	(0.206)	(0.726)	(0.726)	(0.190)	(0.571)	(0.571)
Dif(null, H=exogenous)	(0.148)	(0.366)	(0.366)	(0.098)	(0.209)	(0.209)	(0.264)	(0.497)	(0.497)
(b) IV (years, eq(diff))									
H excluding group	(0.153)	(0.665)	(0.665)	(0.060)	(0.595)	(0.595)	(0.353)	(0.509)	(0.509)
Dif(null, H=exogenous)	(0.948)	(0.353)	(0.353)	(0.399)	(0.107)	(0.107)	(0.101)	(0.572)	(0.572)
Fisher Instruments	154.58*** 22	98.98*** 26	98.98*** 26	257.13*** 22	63.40*** 26	63.40*** 26	462.66*** 22	165.37*** 26	165.37*** 26
Countries	47	41	41	37	41	41	47	41	41
Observations	163	136	136	163	136	136	163	136	136

Note: ***, **, and * indicate significance at 1%, 5% and 10% levels respectively. DHT: Difference in Hansen Test for Exogeneity of Instruments' Subsets. Dif: Difference. OIR: Over-identifying Restrictions Test. The significance of bold values is twofold. 1) The significance of estimated coefficients, Hausman test and the Fisher statistics. 2) The failure to reject the null hypotheses of: a) no autocorrelation in the AR(1) & AR(2) tests and; b) the validity of the instruments in the Sargan OIR test. Fin: Financial. Priv. Invt: Private Investment. Not all constitutive terms enter into third specifications because of perfect multicollinearity.

Source: Authors' computation.

Table 8: Financial Activity, institutions and private investment

	Dependent Variable: Private Investment								
	Political Governance (PolGov)			Institutional Governance (InstGov)			Economic Governance (EconGov)		
Priv. Invt. (-1)	0.500*** (0.000)	0.592*** (0.000)	0.592*** (0.000)	0.446*** (0.000)	0.544*** (0.000)	0.544*** (0.000)	0.561*** (0.000)	0.564*** (0.000)	0.564*** (0.000)
Constant	5.140*** (0.000)	7.484*** (0.000)	7.484*** (0.000)	3.913 (0.216)	6.553*** (0.000)	6.553*** (0.000)	3.935 (0.168)	6.078*** (0.000)	6.078*** (0.000)
Growth	0.141 (0.318)	0.064 (0.418)	0.064 (0.418)	0.340*** (0.006)	0.221** (0.024)	0.221** (0.024)	0.167* (0.062)	0.170** (0.048)	0.170** (0.048)
Inflation	-0.0005* (0.023)	-0.039*** (0.001)	-0.039*** (0.001)	0.00006 (0.848)	-0.036*** (0.002)	-0.036*** (0.002)	0.00005 (0.902)	-0.021* (0.056)	-0.021* (0.056)
Trade	0.016 (0.324)	-0.011 (0.496)	-0.011 (0.496)	0.023 (0.570)	-0.0004 (0.976)	-0.0004 (0.976)	0.014 (0.696)	0.002 (0.826)	0.002 (0.826)
Fin. Activity (FA)	---	1.814	---	---	2.936	---	---	0.027	---
		(0.594)			(0.223)			(0.992)	
PolGov	2.394*** (0.000)	0.275 (0.716)	0.275 (0.716)	---	---	---	---	---	---
InstGov	---	---	---	3.298** (0.027)	0.581 (0.338)	0.581 (0.338)	---	---	---
EconGov	---	---	---	---	---	---	2.980** (0.018)	1.887* (0.060)	1.887* (0.060)
PolGov*FA	---	---	-0.865 (0.954)	---	---	---	---	---	---
InstGov*FA	---	---	---	---	---	-4.498 (0.223)	---	---	---
EconGov*FA	---	---	---	---	---	---	---	---	-0.048 (0.992)
Time effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
AR(1)	(0.200)	(0.267)	(0.267)	(0.210)	(0.280)	(0.280)	(0.177)	(0.265)	(0.265)
AR(2)	(0.402)	(0.397)	(0.397)	(0.607)	(0.463)	(0.463)	(0.536)	(0.450)	(0.450)
Sargan OIR	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Hansen OIR	(0.319)	(0.266)	(0.266)	(0.080)	(0.347)	(0.347)	(0.186)	(0.376)	(0.376)
DHT for instruments									
(a) Instruments in levels									
H excluding group	(0.831)	(0.785)	(0.785)	(0.206)	(0.868)	(0.868)	(0.190)	(0.814)	(0.814)
Dif(null, H=exogenous)	(0.148)	(0.120)	(0.120)	(0.098)	(0.150)	(0.150)	(0.264)	(0.187)	(0.187)
(b) IV (years, eq(diff))									
H excluding group	(0.153)	(0.234)	(0.234)	(0.060)	(0.206)	(0.206)	(0.353)	(0.251)	(0.251)
Dif(null, H=exogenous)	(0.948)	(0.429)	(0.429)	(0.399)	(0.860)	(0.860)	(0.101)	(0.755)	(0.755)
Fisher Instruments	154.58***	266.00***	266.00***	257.13***	314.69***	314.69***	462.66***	140.98***	140.98***
Countries	22	26	26	22	26	26	22	26	26
Observations	47	43	43	37	43	43	47	43	43
	163	143	143	163	143	143	163	143	143

Note: ***, **, and * indicate significance at 1%, 5% and 10% levels respectively. DHT: Difference in Hansen Test for Exogeneity of Instruments' Subsets. Dif: Difference. OIR: Over-identifying Restrictions Test. The significance of bold values is twofold. 1) The significance of estimated coefficients, Hausman test and the Fisher statistics. 2) The failure to reject the null hypotheses of: a) no autocorrelation in the AR(1) & AR(2) tests and; b) the validity of the instruments in the Sargan OIR test. Fin: Financial. Priv. Invt: Private Investment. Not all constitutive terms enter into third specifications because of perfect multicollinearity.

Source: Authors' computation.

Table 9: Financial Size, institutions and private investment

	Dependent Variable: Private Investment								
	Political Governance (PolGov)			Institutional Governance (InstGov)			Economic Governance (EconGov)		
Priv. Invt. (-1)	0.500*** (0.000)	0.581*** (0.000)	0.581*** (0.000)	0.446*** (0.000)	0.622*** (0.000)	0.622*** (0.000)	0.561*** (0.000)	0.602*** (0.000)	0.602*** (0.000)
Constant	5.140*** (0.000)	3.742 (0.187)	3.742 (0.187)	3.913 (0.216)	3.786 (0.352)	3.786 (0.352)	3.935 (0.168)	1.566 (0.642)	1.566 (0.642)
Growth	0.141 (0.318)	0.123 (0.175)	0.123 (0.175)	0.340*** (0.006)	0.118 (0.218)	0.118 (0.218)	0.167* (0.062)	0.181* (0.069)	0.181* (0.069)
Inflation	-0.0005* (0.023)	-0.0005 (0.130)	-0.0005 (0.130)	0.00006 (0.848)	0.000 (0.979)	0.000 (0.979)	0.00005 (0.902)	0.00003 (0.882)	0.00003 (0.882)
Trade	0.016 (0.324)	-0.040** (0.024)	-0.040** (0.024)	0.023 (0.570)	-0.012 (0.436)	-0.012 (0.436)	0.014 (0.696)	-0.009 (0.459)	-0.009 (0.459)
Fin. Size(FS)	---	6.514** (0.013)	---	---	2.363 (0.444)	---	---	5.341 (0.163)	---
PolGov	2.394*** (0.000)	0.806* (0.085)	0.806* (0.085)	---	---	---	---	---	---
InstGov	---	---	---	3.298** (0.027)	2.363*** (0.000)	2.363*** (0.000)	---	---	---
EconGov	---	---	---	---	---	---	2.980** (0.018)	2.673*** (0.000)	2.673*** (0.000)
PolGov*FS	---	---	-3.107** (0.013)	---	---	---	---	---	---
InstGov*FS	---	---	---	---	---	-5.894 (0.444)	---	---	---
EconGov*FS	---	---	---	---	---	---	---	---	-8.183 (0.163)
Time effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
AR(1)	(0.200)	(0.211)	(0.211)	(0.210)	(0.173)	(0.173)	(0.177)	(0.192)	(0.192)
AR(2)	(0.402)	(0.501)	(0.501)	(0.607)	(0.489)	(0.489)	(0.536)	(0.557)	(0.557)
Sargan OIR	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Hansen OIR	(0.319)	(0.406)	(0.406)	(0.080)	(0.299)	(0.299)	(0.186)	(0.256)	(0.256)
DHT for instruments									
(a) Instruments in levels									
H excluding group	(0.831)	(0.848)	(0.848)	(0.206)	(0.510)	(0.510)	(0.190)	(0.493)	(0.493)
Dif(null, H=exogenous)	(0.148)	(0.198)	(0.198)	(0.098)	(0.224)	(0.224)	(0.264)	(0.190)	(0.190)
(b) IV (years, eq(diff))									
H excluding group	(0.153)	(0.343)	(0.343)	(0.060)	(0.244)	(0.244)	(0.353)	(0.328)	(0.328)
Dif(null, H=exogenous)	(0.948)	(0.523)	(0.523)	(0.399)	(0.503)	(0.503)	(0.101)	(0.206)	(0.206)
Fisher Instruments	154.58***	176.63***	176.63***	257.13***	261.14***	261.14***	462.66***	318.50***	318.50***
Countries	22	26	26	22	26	26	22	26	26
Observations	47	46	46	37	46	46	47	46	46
	163	157	157	163	157	157	163	157	157

Note: ***, **, and * indicate significance at 1%, 5% and 10% levels respectively. DHT: Difference in Hansen Test for Exogeneity of Instruments' Subsets. Dif: Difference. OIR: Over-identifying Restrictions Test. The significance of bold values is twofold. 1) The significance of estimated coefficients, Hausman test and the Fisher statistics. 2) The failure to reject the null hypotheses of: a) no autocorrelation in the AR(1) & AR(2) tests and; b) the validity of the instruments in the Sargan OIR test. Fin: Financial. Priv. Invt: Private Investment. Not all constitutive terms enter into third specifications because of perfect multicollinearity.

Source: Authors' computation.

Appendices

Appendix 1: Variable Definitions

Variables	Signs	Variable Definitions (Measurement)	Sources
Political Stability	PolSta	“Political stability/no violence (estimate): measured as the perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional and violent means, including domestic violence and terrorism”.	World Bank (WDI)
Voice & Accountability	V&A	“Voice and accountability (estimate): measures the extent to which a country’s citizens are able to participate in selecting their government and to enjoy freedom of expression, freedom of association and a free media”.	World Bank (WDI)
Political Governance	Polgov	First Principal Component of Political Stability and Voice & Accountability. The process by which those in authority are selected and replaced.	PCA
Government Effectiveness	Gov. E	“Government effectiveness (estimate): measures the quality of public services, the quality and degree of independence from political pressures of the civil service, the quality of policy formulation and implementation, and the credibility of governments’ commitments to such policies”.	World Bank (WDI)
Regulation Quality	RQ	“Regulation quality (estimate): measured as the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development”.	World Bank (WDI)
Economic Governance	Ecogov	First Principal Component of Government Effectiveness and Regulation Quality. The capacity of government to formulate & implement policies, and to deliver services.	PCA
Rule of Law	RL	“Rule of law (estimate): captures perceptions of the extent to which agents have confidence in and abide by the rules of society and in particular the quality of contract enforcement, property rights, the police, the courts, as well as the likelihood of crime and violence”.	World Bank (WDI)
Corruption-Control	CC	“Control of corruption (estimate): captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as ‘capture’ of the state by elites and private interests”.	World Bank (WDI)
Institutional Governance	Instgov	First Principal Component of Rule of Law and Corruption-Control. The respect for citizens and the state of institutions that govern the interactions among them	PCA
General Governance	G.gov	First Principal Component of Political, Economic and Institutional Governances	PCA
Inflation	Infl	Consumer Price Index (annual %)	World Bank (WDI)
GDP growth	GDPg	Gross Domestic Product (GDP) growth (annual %)	World Bank (WDI)
Trade Openness	Trade	Export plus Imports of Commodities (% of GDP)	World Bank (WDI)
Private Investment	PrivIvt	Gross Private Investment (% of GDP)	World Bank (WDI)
Financial system Depth	LLgdp	Liquid Liabilities (% of GDP)	World Bank (FDSD)
Financial System Efficiency	FcFd	Financial credit on Financial deposit	World Bank (FDSD)
Financial System Activity	Pcrbof	Private domestic credit by deposit banks and other financial institutions (% of GDP)	World Bank (FDSD)

Financial System Size	Dbacba	Deposit bank assets on (Deposit bank assets plus Central bank assets)	World Bank (FDSD)
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Note: WDI: World Bank Development Indicators. FDSD: Financial Development and Structure Database. PCA: Principal Component Analysis. P.C: Principal Component. V& A: Voice & Accountability. R.L: Rule of Law. R.Q: Regulation Quality. GE: Government Effectiveness. PS: Political Stability. CC: Control of Corruption.

Appendix 2: Summary statistics

	Mean	SD	Minimum	Maximum	Observations
Political Stability	-0.571	0.952	-3.229	1.143	265
Voice & Accountability	-0.679	0.730	-2.161	1.047	265
Political Governance	-0.016	1.291	-3.204	2.621	264
Government Effectiveness	-0.678	0.610	-1.847	0.761	255
Regulation Quality	-0.681	0.674	-2.573	0.868	265
Economic Governance	0.049	1.310	-3.019	3.290	254
Rule of Law	-0.703	0.686	-2.550	1.018	265
Control of Corruption	-0.598	0.622	-2.344	0.971	265
Institutional Governance	0.008	1.378	-3.879	3.179	264
Private Investment	13.075	9.115	-0.540	85.913	231
Inflation	56.191	575.70	-45.335	8603.3	230
Trade Openness	78.340	39.979	20.980	250.95	247
GDP Growth	4.755	5.587	-11.272	49.367	254
Financial Depth	0.254	0.214	0.023	0.962	205
Financial Efficiency	0.748	0.414	0.158	2.575	195
Financial Activity	0.197	0.239	0.007	1.681	205
Financial Size	0.710	0.249	0.019	1.436	251

Note: S.D: Standard Deviation.

Source: Authors' computation.

Appendix 3: Correlation Analysis

Financial Development				Control variables			Institutions				Priv.
Fdgdp	FcFd	Pcrbof	Dbacba	GDPg	Trade	Inflation	PolGov	InstGov	EcoGov	G.Gov	Invt.
1.000	0.078	0.689	0.456	-0.115	0.244	-0.066	0.458	0.677	0.589	0.616	0.165
	1.000	0.667	0.268	-0.075	-0.166	-0.119	0.104	0.162	0.290	0.211	-0.013
		1.000	0.431	-0.109	0.023	-0.068	0.365	0.537	0.603	0.540	0.077
			1.000	-0.083	0.154	-0.068	0.411	0.470	0.531	0.517	0.240
				1.000	0.179	-0.132	-0.012	-0.084	-0.041	-0.049	0.536
					1.000	0.024	0.202	0.207	0.089	0.174	0.469
						1.000	-0.114	-0.136	-0.169	-0.149	-0.089
							1.000	0.819	0.758	0.901	0.199
								1.000	0.878	0.957	0.220
									1.000	0.945	0.225
										1.000	0.229
											1.000
											Priv. Invt

Note: Fdgdp: liquid liabilities. FcFd: Financial credit on financial deposit. Pcrbof: Private domestic credit by deposit banks and other financial institutions. Dbacba: Deposit bank assets on deposit bank assets plus central bank assets. GDPg: GDP growth rate. PolGov: Political Governance. InstGov: Institutional Governance. EcoGov: Economic Governance. G. Governance: Governance.

Source: Authors' computation.

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